

Art Unit: 2800

Clmpto

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1. An insert comprising a supporting portion for supporting an external terminal face of an area array type electronic component so that external terminals of the area array type electronic component are exposed to the direction of connection terminals of a socket, wherein

a thickness of the supporting portion is approximately equal to or less than a distance between a contact portion of the external terminals of the area array type electronic component and the external terminal face of the area array type electronic component, and

the supporting portion is provided to be positioned between the external terminal face of the area array type electronic component and the connection terminal face of the socket when the external terminals of the area array type electronic component and the connection terminals of the socket are connected.

2. The insert as set forth in claim 1, wherein the supporting portion is configured by a thin plate.

3. (Currently Amended) The insert as set forth in claim 1 or 2, wherein a plate member comprising the supporting portion is provided to the insert so as to face the connection terminal face of the socket.

4. The insert as set forth in claim 3, wherein a supporting portion part or whole of the plate member is configured by a thin plate.

5. (Currently Amended) The ~~insert~~ as set forth in claim 3 or 4, wherein the plate member has an opening portion for exposing the external terminals of the area array type electronic component to the direction of the connection terminals of the socket, and can support the external terminal face of the area array type electronic component by a rim of the opening portion.

6. The ~~insert~~ as set forth in claim 5, wherein the rim of the opening portion of the plate member is configured by a thin plate.

7. (Currently Amended) The ~~insert~~ as set forth in ~~any one of claims~~ claim 3 to 6, wherein the plate member is attached to an insert body as a separate member from the insert body.

8. (Currently Amended) The ~~insert~~ as set forth in ~~any one of claims~~ claim 3 to 7, wherein the plate member is configured by a metal plate.

9. (Currently Amended) The ~~insert~~ as set forth in ~~any one of claims~~ claim 1 to 8, being attached to a tray for carrying an electronic component to be tested to and from a contact portion of a test head of an electronic component testing apparatus.

10. (Currently Amended) An electronic component handling apparatus for conducting a test on an area array type electronic component by connecting external terminals of the area array type electronic component with connection terminals of a socket in a state of holding the area array type electronic component in an insert, comprising the insert as set forth in ~~any one of claims~~ claim 1 to 9.

11. The electronic component handling apparatus as set forth in claim 10, wherein the socket is a sheet shaped socket.

12. An electronic component testing method for conducting a test on an area array type electronic component, comprising

supporting an external terminal face of the area array type electronic component by a rim of an opening

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portion of a plate member having the opening portion,
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pressing the area array type electronic component
in the direction of connection terminals of a socket in a
state that external terminals of the area array type
electronic component are exposed from the opening portion
to the direction of the connection terminals of the
socket, and

connecting the external terminals of the area array
type electronic component with the connection terminals
of the socket,

wherein

a thickness of the rim of the opening portion of the plate member is approximately equal to or less than a distance between a contact portion of the external terminals of the area array type electronic component and the external terminal face of the area array type electronic component, and

the plate member is positioned between the external terminal face of the area array type electronic component and the connection terminal face of the socket when the external terminals of the area array type electronic component and the connection terminals of the socket are connected.